

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018103**Date Inspected:** 10-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr.Qiu Wen.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

NDT

BAY 10

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower lift 4 Facade. The weld designations reviewed are as follows.

ND1-SFSA4-331A/B-1, 2, 3, 21, 22, 23, 24, 17, 19, 26, 11

NDT Notification No-07294

BAY 10

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower lift 4 Facade. The weld designations reviewed are as follows.

ND1-SFSA4-336A/B-19, 20, 25, 26, 1, 2, 29, 5, 15, 21

ND1-SFSA4-326A/B-23, 24, 7, 8, 5, 6, 15, 17, 37

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

NDT Notification No-07304

BAY 11

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike path. The weld designations reviewed are as follows.

BK005B1-004-043

NDT Notification No-07296

BAY 10

This QA Inspector performed randomly Visual Inspection of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK004A3-028-065, 067, 068, 100, 101, 102, 069, 070, 071, 103, 104, 105

BK004A4-028-080, 082, 083, 100, 101, 102, 085, 086, 087, 103, 104, 105

NDT Notification No-07301

This QA Inspector observed the following work in progress:

BAY 11

OBG Bike path, SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040614 Perform Shielded Metal Arc Welding (SMAW) on OBG bike path. Joint identified as BK004A6-023-025, 027, 259, 125. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2113.

Tower SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040724, Perform Shielded Metal Arc Welding (SMAW) on Tower Bracket Stiffener lift 5. Joint identified as ND1-BRSA5-2-1B. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b. For more information see below attached picture number 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 054460, 044541, Perform Shielded Metal Arc Welding (SMAW) on Tower Bracket Stiffener lift 5. Joint identified as SD1-BRSA5-1-6B. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b.

Tower lift 6, FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 042218, 040723, Perform Flux Core Arc Welding (FCAW) on Tower lift 6 face A plate. Joint identified as ESD1-FASA6-2-7, 8. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

This QA Inspector observed ZPMC qualified welding personnel identified as 053316, 205649, Perform Flux Core Arc Welding (FCAW) on Tower lift 6 face A plate. Joint identified as WSD1-FASA6-4-7, 8. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

BAY 10

SMAW Process, Repair welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 056364 Perform Shielded Metal Arc Welding (SMAW) on Tower lift 5 Bottom cover plate. Joint identified as SSD1-TL5-1B/F-70A. ZPMC QC Identified as Li Peng Fei with Temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-1G (1F) –Repair.

OBG SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 052493 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path. Joint identified as BK004A3-028-065, 067, 068. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112.

This QA Inspector observed ZPMC qualified welding personnel identified as 057258 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path. Joint identified as BK004A5-029-004, 007. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2113.

Ultrasonic Testing:

This QA Inspector observed AB/F Ultrasonic Testing Inspector, performed UT on Tower lift 5 Grillage Bottom cover plate. Joint identified as SSD1-TL5-1B/F-63A/B, 61A/B, 50A/B, 58A/B, 49A/B, 70A/B, 44A/B, 42A/B. For more information see below attached picture number 2.

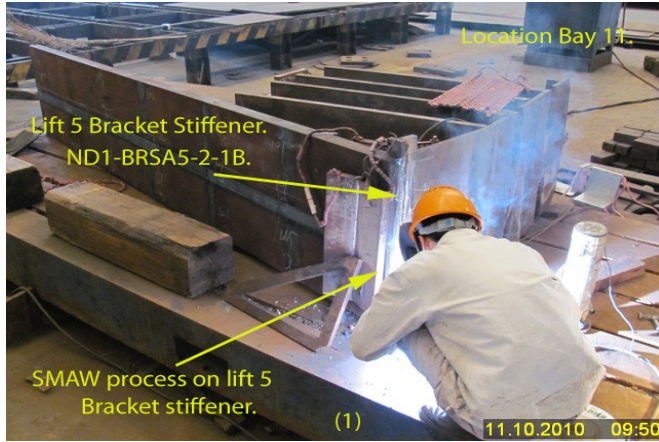
BAY 10, Green Tagging

This QA inspector performed Visual Inspection for Green Tagging which were previously tested and accepted by ZPMC Quality Control personnel Mr. Qiu Wen and ABF QA personnel Mr. Yanh Yi Heng. The members are identified as Lift 1 South Tower Skirt plate SD1-A712C/F-92, 93, 94, P2101-5, 6. The green Tag number is identified as # 13647.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho phone : 150002048250, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer